

THE GENUS *EUDIAGOGUS* (COLEOPTERA: CURCULIONIDAE:
LEPTOPIINAE), WITH TWO NEW SPECIES ON THE
WEED *SESBANIA* (LEGUMINOSAE)

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Abstract.—In the New World genus *Eudiagogus* (Coleoptera: Curculionidae), two new species, *pogo* from Georgia and *maryae* from Florida, are described; the lectotype of *E. pallidevittatus* is designated; and *E. albo-limbatus* is synonymized under *E. rosenschoeldi*. A new key, illustrations, distributions, and host records are given for all six species of *Eudiagogus*. The adults of these species defoliate *Sesbania*, a weed that competes with soybeans.

The species of the weevil genus *Eudiagogus* live almost exclusively on species of *Sesbania* (Leguminosae). *Sesbania* spp., commonly known as hemp sesbania, Drummond rattlebox, purple sesbania, and bagpod sesbania, are very troublesome weeds competing with soybeans on several hundred thousand acres in the Mississippi River Delta of Arkansas, Louisiana, and Mississippi. These weeds produce large quantities of seeds which persist in the soil for years.

In 1840, Schoenherr described the new genus *Eudiagogus* and included three species, *episcopalis*, type by original designation, from Brazil, *rosenschoeldi* Fahraeus from Nova Aurelia [New Orleans, Louisiana, USA] and *pulcher* Fahraeus from Mexico. Lucas, in 1859, described *E. pallidevittatus* from Peru. In a discussion of the genus Horn (1876) mentioned but did not formally name two varieties of *pulcher*, one from Florida and one from Texas.

Horn's variety from Florida is described below as a new species. Also a species from Georgia is described as new.

Eudiagogus Schoenherr

Eudiagogus Schoenherr, 1840:307 [type-species: *Promecops episcopalis* Schoenherr 1834:164, by original designation].

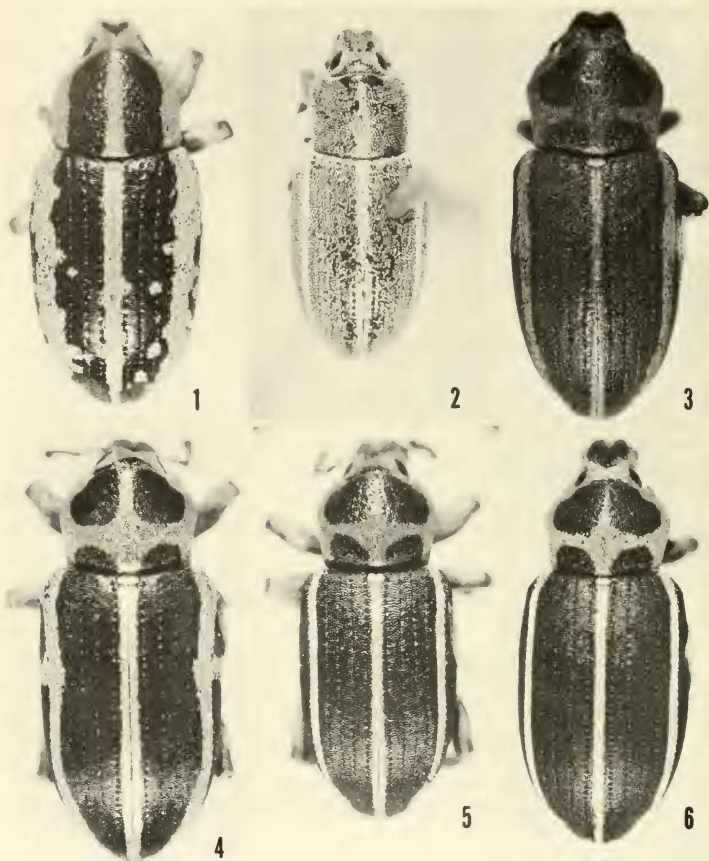
Diagnosis.—Form convex, oblong, subovate, densely scaly. Rostrum as long as head, stout, medially furrowed; submentum pendunculate, deeply emarginate; mentum small, retracted. Scrobes narrow, well defined, passing immediately beneath and slightly beyond lower border of eye, not continued beneath rostrum. Eyes oval, pointed toward the posterior border of antennal scrobe. Antennae moderately long; scape slightly arcuate, gradually clavate, passing slightly beyond anterior border of eye; funicle 7-segmented. Pronotum broader than long, narrowed basally; ocular lobes very prominent. Scutellum transverse. Elytra oblong; base slightly wider than thorax; humeri oblique; sides parallel. Mesosternum not protuberant; metasternum short, metasternal suture well defined. Second visible abdominal sternum longer than 3 and 4 united, 1st suture arcuate. Posterior tibiae with corbel closed; claws free.

The genus *Eudiagogus* belongs in the tribe Promecopini. In this tribe the rostrum is short, stout, dilated or not (*Eudiagogus*) in front, apex emarginate; antennae moderately long, scape passing eye or not. Thorax with very large ocular lobes; deeply emarginate beneath; scutellum distinct. Tibiae mucronate; tarsal claws free or connate. The genus *Eudiagogus* may be distinguished from others of the tribe (*Coleocerus*, *Aracanthus*, and *Promecops*) by the absence of erect setae on the elytra, the large and transverse scutellum (except in *rosenschoeldi*), and by the acute emargination of the submentum.

Eudiagogus maryae Warner, NEW SPECIES

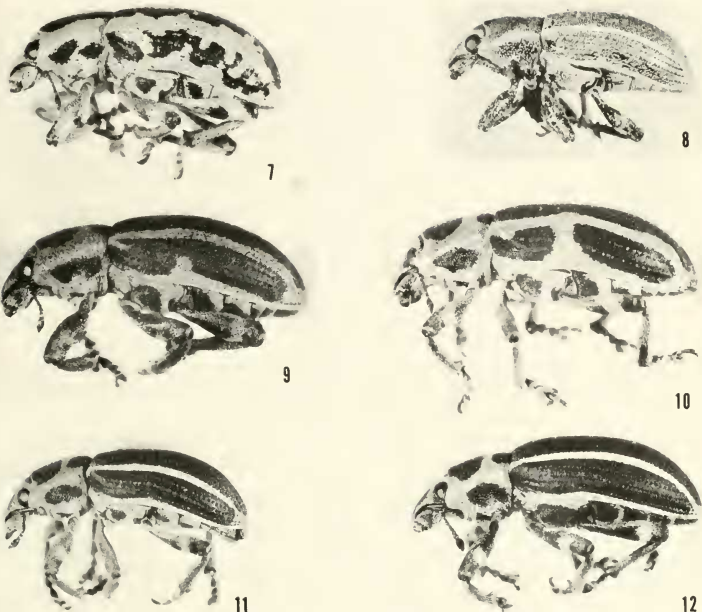
Figs. 5, 11, 16, 21, 26, 31c, 35, 38c

Holotype.—♂. Length 5.81 mm, width 2.32 mm. Integument black, shiny, antennae and legs dark brown. Vestiture of closely appressed shiny black, metallic copper, and yellow scales that conceal the integument. Head with black and copper scales; convex copper scales covering frons and encircling eyes; flat, black scales covering rest of head. Eyes large. Frons continuous with rostrum, medially with large deep, round fossa at base of rostrum. Rostrum stout, thick (0.664 mm), wider than long (0.966–0.747 mm), dorsally rounded; with dense appressed, black and whitish scales, except scales on apex metallic green and copper; apex emarginate, with 3–4 long silvery, hairlike setae; scrobes deep, sharply defined, curving downward in front of eye, passing eye but not extending under rostrum. Antennae moderately long; scape and funicle with fine hairlike silvery greenish scales; club densely pubescent, dark brown. Pronotum in dorsal view about as wide as long (1.82 mm–1.66 mm), narrowing to base; postocular lobes well developed, projecting; surface sparsely and finely punctate; vestiture dense, of closely appressed shiny, black, striate scales and convex nonstriate copper scales; copper scales present on lateral margins and on disc forming a median lon-



Figs. 1-6. *Eudiagogus* spp., dorsal view. 1, *rosenschoeldi*. 2, *pallidevittatus*. 3, *pogo*. 4, *pulcher*. 5, *maryae*. 6, *episcopalis*.

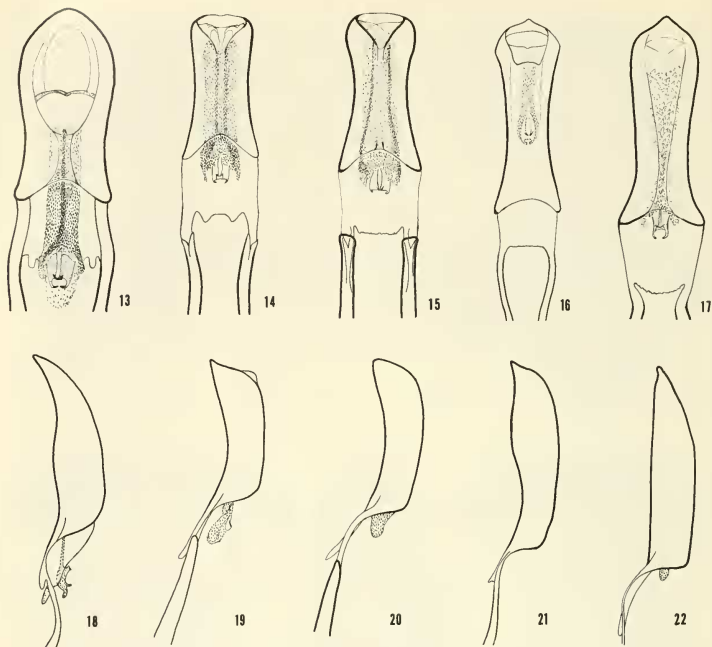
gitudinal and a posterior transverse bar that divide the disc into 4 dark areas, anterior dark area larger; hypomeron with a large spot of black scales. Scutellum large, transverse; densely covered with metallic yellow scales. Elytra with black vestiture as on prothorax, and with bright yellow scales forming longitudinal stripes from base to apex on intervals 1 and 6 and on



Figs. 7-12. *Eudiagogus* spp., lateral view. 7, *rosenschoeldi*. 8, *pallidevittatus*. 9, *pogo*. 10, *pulcher*. 11, *maryae*. 12, *episcopalis*.

lateral margins (Figs. 5, 11); parallel sided to beyond middle then gently rounded to apex; intervals of equal width; striae of fine deep punctures; each puncture with a minute black seta. Legs with dense vestiture of greyish-white striate scales intermixed with small white setaelike scales; femur with a ring of large, bright metallic yellowish scales; tibia straight, mucro strong, corbel of posterior tibia closed and clothed with a single row of erect yellowish setaelike scales; tarsus normal, dorsally clothed with greenish setaelike scales, ventrally densely pubescent, segment 4 long, slender, claws free. Venter with dense white scales, visible abdominal sternum 5 less scaly but with numerous erect hairlike setae; each sternum with lateral black spot; visible sterna 1 and 2 medially concave, visible sternum 5 at apex slightly convex. Genitalia as figured (Figs. 16, 21).

Allotype.—♀. Length 5.8 mm, width 2.4 mm. Differing from male by the evenly convex visible abdominal sterna 1 and 2, and the shorter visible sternum 5. Spermatheca and sternum 8 as figured (Figs. 26, 31c).



Figs. 13–22. *Eudiagogus* spp., median lobe of male genitalia, dorsal and lateral views. 13 and 18, *rosenschoeldi*. 14 and 19, *pogo*. 15 and 20, *pulcher*. 16 and 21, *maryae*. 17 and 22, *episcopalis*.

Paratypes.—Length 3.98–6.31 mm, average length 4.03. Like holotype and allotype except some specimens with metallic scales on pronotum, elytra, and venter sometimes greenish, deep copper, yellow, or a mixture of these colors, black scales sometimes brownish or with a greenish sheen.

Described from holotype ♂, allotype ♀, USNM Type no. 73811, and 49 paratypes, 17 ♂ and 10 ♀, from Tampa, Hillsborough Co., Florida, 24-V-44, Tuthill collector, on *Glottidium vesicarium* (= *Sesbania vesicaria* (Jacq.) Ell.) leaves, USDA no. 44-14959; 14 ♂ and 8 ♀, same data as holotype except, 25-V-44, Link and Tuthill, USDA no. 44-14960.

Also, 87 nonparatypic specimens were studied from the following localities: ALABAMA. Montgomery Co. Auburn Co.: Auburn. SOUTH CAROLINA. Horry Co.: Myrtle Beach; Charlestown Co.: McClellanville. NORTH CAROLINA. Columbus Co.: Chadburn; Brunswick Co. GEOR-

GIA. Spalding Co.: Experiment; McIntosh Co.: Darin; Chatham Co.: Savannah. FLORIDA. Lee Co.: Fort Meyers; Dade Co.: Hialeah; Duval Co.: Jacksonville; Manatee Co.: Oneco; Hillsborough Co.: Seddon Island, Tampa; Pinellas Co.: St. Petersburg; Seminole Co.: Sanford; Volusia Co.: DeLand; Alachua Co.: Gainesville. The geographic distribution is shown in Fig. 35 and the seasonal distribution in Fig. 38c, these figures are based on the specimens examined.

This species is very similar to the South American species, *episcopalis*. It can be readily separated from *episcopalis* by its smaller size, by the more sparse and less coarsely punctured rostrum and pronotum, and by the larger, deep, round fossa at the base of a deep, fine, rostral groove. In *episcopalis* the size is larger, the punctures of the rostrum and pronotum are coarser and denser, the more shallow, oblong fossa is located at the base of a broader, more shallow rostral groove, and the shape of the median lobe of the male genitalia is especially different (Figs. 17, 22). The species *maryae* is easily separated from the North American species by the median lobe of the male genitalia and by the other characters given in the key.

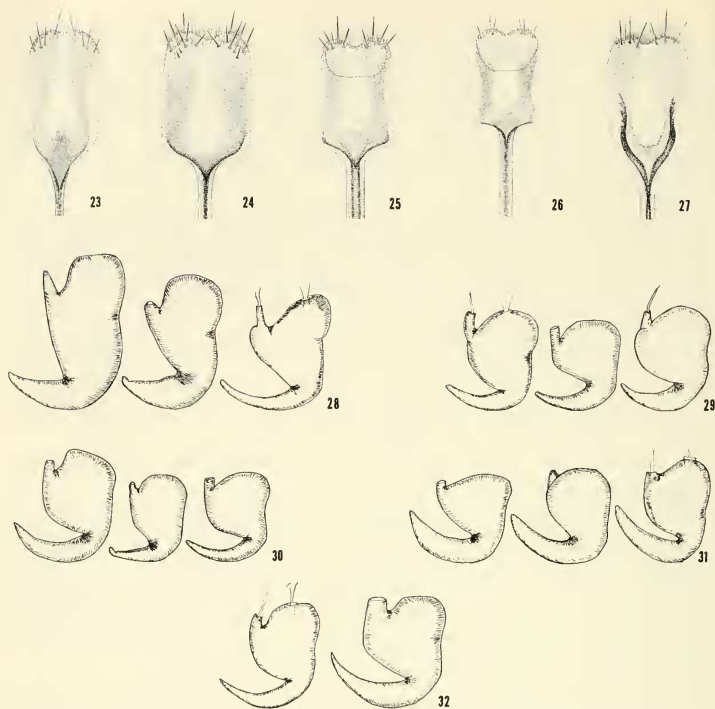
Etymology.—*Eudiagogus maryae*, for my sister Mary in whose honor this species is named.

Biology.—Nothing is known of the life history of this species, but specimens have been found feeding on and defoliating species of *Sesbania*. The following records are from labels pinned with specimens studied: In pepper blossom; on okra; on corn; on butterbeans; on squash; on coffee weed; feeding on *Cassia* sp.; false indigo; spanish needle; black-eyed pea leaf, stem and pod; bagpod sesbania, *Sesbania vesicaria* (Jacq.) Ell., hemp sesbania, *Sesbania exaltata* (Ref.) Cory, and in soybean fields.

Eudiagogus pogo Warner, NEW SPECIES

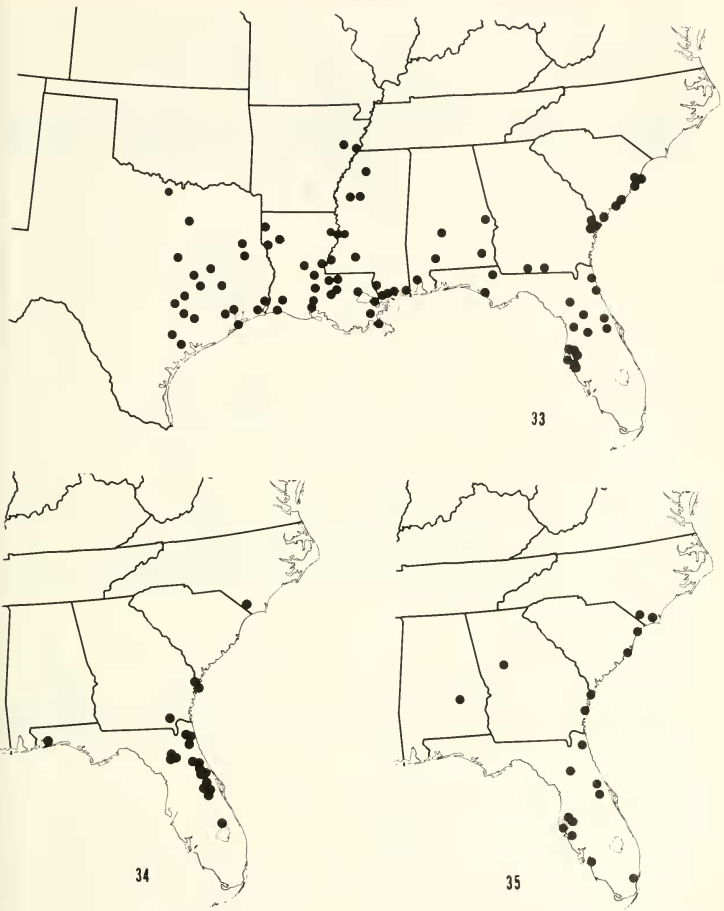
Figs. 3, 9, 14, 19, 24, 29, 34, 38b

Holotype.—♂. Length 7.97 mm, width 3.15 mm. Integument black. Vestiture of dense, closely appressed, small, dull brownish-black scales, convex tannish scales, and a few scattered greenish metallic scales. Head covered with convex tan and brown, nonmetallic scales. Eyes large. Frons continuous with rostrum, medially with a small pit. Rostrum stout, thick (0.83 mm), almost as wide as long (0.83–0.91 mm); dorsally flat; deeply and broadly grooved from frontal pit to emarginate apex, with black, tan, and a few scattered greenish-metallic scales from base to apex, 2–3 stout setae, each arising from a puncture, on either side of broad apical sulcus; scrobes deep, well defined, from apex, then passing downward in front of eye and continuing a short distance under rostrum. Antennae moderately short, scape curved to fit into scrobe; funicular segments shiny, sparsely clothed with fine silvery setae. Pronotum in dorsal view wider than long (2.49–1.83 mm), expanding behind well-developed ocular lobes then narrowing to base; with



Figs. 23-32. *Eudiagogus* spp., sternum 8 and spermatheca of female. 23 and 28, *rosenscholdi*. 24 and 29, *pogo*. 25 and 30, *pulcher*. 26 and 31, *maryae*. 27 and 32, *episcopalis*.

sparse, large punctures; vestiture dense, of closely appressed, brownish black, and tan scales, tan scales present on lateral and anterior margins, and forming on disc a median longitudinal and a posterior transverse bar dividing the disc into 4 dark areas, anterior dark area larger; hypomeron with a large spot of black scales. Prosternum covered with tan scales. Scutellum large, transverse, densely covered with tan scales. Elytra with black and tan vestiture as on prothorax, dull tan scales forming a narrow longitudinal stripe from base to apex on interval 1 and 6 and on lateral margins, stripe on lateral margin broadening at a point opposite posterior coxae and partially dividing the lateral black area (Fig. 9); parallel sided in basal $\frac{1}{3}$ then gently rounded to apex; intervals of equal width; striae of fine, shallow punctures, each puncture with minute black seta.



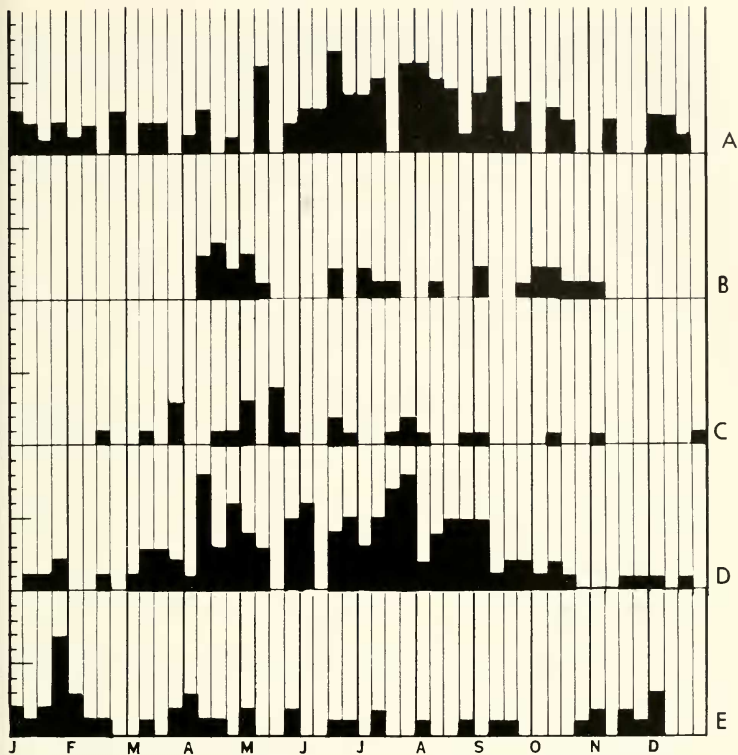
Figs. 33-35. *Eudiagogos* spp., geographical distribution. 33, *rosenschoeldi*. 34, *pogo*. 35, *maryae*.

Legs stout; femur short, thick; tibia stout, curved toward apex, mucro strong, corbel of posterior tibia closed. broad, anterior and distal combs composed of stout black spines, anterior spines shorter; clothed with erect silvery scales and light tan and brown appressed scales, not covering integ-



Figs. 36-37. *Eudiagogus* spp., geographical distribution. 36, *pulcher*. 37, *episcopalis* and *pallidevittatus*.

ument; larger metallic copper and nonmetallic tan scales forming a ring on femora, ring more evident on posterior femora. Venter with appressed, black, whitish, and metallic golden scales, visible abdominal sterna 1-4 with whitish scales broader and denser along posterior margin, and submetallic



38

Fig. 38. *Eudiagogus* spp., seasonal distribution. A, *rosenschoeldi*. B, *pogo*. C, *maryae*. D, *pulcher*. E, *episcopalis*.

yellowish scales denser along lateral margins, and with lateral spot of brownish-black scales, visible sternum 5 with brownish-black scales (a few white scales laterally) and with numerous erect silvery hairlike setae that are longer and more numerous toward apex; sterna 1–2 medially concave; sternum 5 convex, finely, densely punctured; pygidium coarsely punctured. Genitalia as figured (Figs. 14, 19).

Allotype.—♀. Length 6.97 mm, width 2.16 mm. Differing from the ♂ only in the slightly smaller size, the less concave sterna 1–2. Spermatheca and sternum 8 as figured (Figs. 24, 29).

Paratypes.—Length 4.99–8.00 mm, average length 6.00 mm. Like holo-

Table 1. Host plants of *Eudiagogus* species (records were not found for the South American species *pallidevittatus*). North America (NA), South America (SA), Mexico (M), Central America (CA). Upper case letters indicate the host was recorded more than once for that species; lower case letters indicate only one record. All scientific and common names of weeds were checked in Standardized Names of Weeds (1971) and Cabrera (1967).

	<i>pul-cher</i>	<i>rosen-schoeldi</i>	<i>episco-palis</i>	<i>pogo</i>	<i>maryae</i>
<i>Sesbania exaltata</i> (hemp sesbania)	NA	NA		NA	NA
<i>Sesbania vesicaria</i> (bagpod sesbania)		NA			na
<i>Sesbania drummondii</i> (Drummond rattlebox)	NA				
<i>Sesbania punicea</i> ("acacia mansa") (purple sesbania)		NA	SA		
<i>Sesbania virgata</i> ("acacia" "cafe")			SA		
<i>Daubentonia texana</i> (coffee weed)	na	NA			na
<i>Cassia occidentalis</i> (coffee senna)	NA	NA			
<i>Cassia marilandica</i> (wild senna)		NA			
<i>Cassia obtusifolia</i> (sicklepod)	NA	NA			
<i>Cassia</i> sp. (senna)				NA	NA
<i>Sesbania tomentosa</i> (sesbania)					NA
<i>Baptisia tinctoria</i> (wild indigo)		na			
<i>Erythrina crista-galli</i> (cockspur coral bean)			sa		
<i>Bidens bipinnata</i> (spanish needle)		NA			na
<i>Solanum tuberosum</i> (nightshade)	na	na			
<i>Acacia</i> sp. ('acacia')	na				
<i>Crotalaria intermedia</i> (crotalaria)		na			
<i>Casuarina equisetifolia</i> (horsetail, beefwood)	na				
<i>Xanthium</i> sp. (cocklebur)	na				
<i>Artemisia</i> sp. (wormwood)		na			
<i>Beta vulgaris</i> (sugar beet)	NA				
<i>Gossypium</i> sp. (cotton)	m na				
<i>Aster sericeus</i> (devilweed)	na				
<i>Hibiscus esculentus</i> (okra)	m				na
<i>Cattleya</i> (orchid)	m				
<i>Musa</i> sp. (banana)	ca				na
<i>Sorghum vulgare saccharatum</i> (sorghum)	m na	na			
<i>Saccharum officinarum</i> (sugar cane)	m				
<i>Lactuca</i> sp. (lettuce)	m				
<i>Capsicum</i> (pepper)					na
<i>Vigna unguiculata</i> (black-eyed pea; cowpea)					na
<i>Cucurbita</i> sp. (squash)					na
<i>Phaseolus lunatus</i> (lima bean)		na			na
<i>Crataegus</i> sp. (hawthorn)	na				
<i>Rudbeckia amplexicaulis</i> (coneflower)	na				
<i>Medicago sativa</i> (alfalfa)	na				
<i>Phaseolus vulgaris</i> (green bean)	na				
<i>Xanthoxylum clava-herculis</i> (prickly ash)	NA	NA			
<i>Carex</i> sp. (sedge grass)		NA	(roots)		
<i>Hymenocallis</i> sp. (spider lily)		na			
<i>Tillandsia usneoides</i> (spanish moss)		na			
<i>Rubus</i> sp. (dewberry)	na				

type and allotype except some specimens with elytral stripes and lateral stripes of abdominal sterna formed of pinkish scales.

Described from holotype ♂, and allotype ♀, USNM Type no. 73810, and 58 paratypes, 38 ♂ and 20 ♀, from Billy's Island, Okefenokee Swamp, Charlton Co., Georgia, 9-VIII-1926, C; C. Sperry collector, on *Sesbania macrocarpa* (= *S. exaltata* (Raf.) Cory).

Also, 352 nonparatypic specimens were studied from the following localities: FLORIDA. Volusia Co.: Enterprise, Deland; Duval Co.: Jacksonville; Seminole Co.: Sanford; Alachua Co.: Gainesville; Putnam Co.: Crescent City; Osceola Co.: Kissimmee; Orange Co.: Orlando; Hillsborough Co.: Tampa; Clay Co.: Green Cove Springs; Okeechobee Co.: Shore of Lake Okeechobee, 6 mi. South Okeechobee; Escambia Co.: Pensacola: Florida, no other locality. GEORGIA. Chatham Co.: Tybee Island, Savannah; Georgia, no other locality. NORTH CAROLINA. Columbia Co.: Chadbourn, (S.C., is on label with the specimens, but Chadbourn is in southern North Carolina, 52 miles west of Wilmington on the North-South Carolina border). Specimens in the Casey Collection USNM, labeled L, the symbol L does not appear in Casey's code of localities and cannot be placed. The geographic distribution is shown in Fig. 34 and seasonal distribution in Fig. 38b, these figures are based on the specimens examined.

This species is similar to *pulcher* in general appearance. It differs from *pulcher* by the stout legs, the dull scales of the maculations, the incomplete narrow lateral transverse bar on the elytra, and the straight longitudinal stripe on elytral interval six. In *pulcher* the legs are more slender, the scales of the maculations have a metallic sheen, the lateral transverse bar on the elytra is wider and completely divides the lateral elytral area, and the stripe on elytral interval six undulates and by the other differences given in the key.

Etymology.—It gives me great pleasure to name this species after the classic comic strip character 'Pogo' created by the late Walt Kelly. Pogo was a 'possum' who lived in Okefenokee Swamp; his antics and those of his swamp friends brought delight to readers young and old.

Biology.—Nothing is known of the life history of this species. Specimens were found feeding on hemp sesbania, *Sesbania exaltata*, in Okefenokee Swamp. The following records are from the labels pinned with the specimens studied; only two series of specimens had 'host' labels: Feeding on *Cassia* sp., and resting on stems of a leguminous weed, presumably *Cassia* sp.

Eudiagogus pallidevittatus Lucas

Eudiagogus pallidevittatus Lucas, 1859:158.

This species is represented by four specimens in the Museum National D'Histoire Naturelle, Paris. These four are without question the type-series.

All the specimens, males, have green labels, Museum Paris, Pampa de Castel . . . , a green disc with number 10/47 on the underside, and an identification label, *E. pallidevittatus* Cat. Mus. Pampa del Sacramento M. de Castelnau. The number 10/47, according to information supplied by Mlle. Hélène Perrin, indicates that the insects were collected on the Mission Sarayaci (Riviere Ucayale), Pampa del Sacramento [Peru] from the voyage of M. de Castelnau. As there is no type-designation for this species, I have selected and labeled one of the four specimens in the above series as the LECTOTYPE.

Eudiagogus rosenschoeldi Fahraeus

Eudiagogus rosenschoeldi Fahraeus, 1840:309.

Eudius albolimbatus Chevrolat. 1881:38, NEW SYNONYMY.

Eudiagogus albolimbatus (Chevrolat), Kuschel, 1955:302.

I have seen the type of *Eudius albolimbatus*, described from "Amer. mer." [South America?], and I am convinced that this locality is wrong and that the type of this species represents merely a rubbed female specimen of *Eudiagogus rosenschoeldi*.

KEY TO SPECIES OF *EUDIAGOGUS*

1. Prothorax dorsally divided by longitudinal stripe of light-colored scales into 2 dark areas (Figs. 1, 2) 2
 - Prothorax dorsally divided by transverse and longitudinal stripes of light-colored scales into 4 dark areas, anterior areas larger (Figs. 3-6) 3
2. Pinkish-white stripes on elytral intervals 1 and 6 and elytral margins wide, stripes very uneven. Male with metasternum and visible abdominal sternum 1 medially with dense, long, erect, silvery hairs; visible sternum 1 of females with scales. Length: 4.15-7.14 mm, average 5.83 mm. Genitalia as figured (Figs. 13, 18, 23, 28). South-eastern and Gulf Coast states (Figs. 1, 7, 33, 38a) *rosenschoeldi* Fahraeus
 - Pale-green elytral stripes on elytral intervals 1 and 6 and elytral margin narrow, stripes even. Male with metasternum not as above; females not seen. Species covered with flat, metallic green scales, ventrally scales denser and less metallic. Length: 4.43-5.16 mm (Figs. 2, 8, 37) Peru *pallidevittatus* Lucas
3. Lateral elytral black area entirely or partially divided by a transverse bar of light-colored scales connecting stripes on elytral interval 6 and lateral margin (Figs. 9-10) 4
 - Lateral elytral black area entire, not divided by a transverse bar of light-colored scales (Figs. 11-12) 5

- 4. Lateral transverse bar narrow, of varying length and partially dividing black area; stripe of light dull tan, convex scales on elytral interval 6 straight; ventrally with sparse, slender scales (laterally scales sometimes denser and with a few scattered metallic scales), in male visible abdominal sternum 5 convex, with long, erect setae, 1 and 2 concave; in female, 5 less convex, 1 and 2 convex. Rostrum dorsally rounded. Legs stout. Robust species. Length: 4.98–8.13 mm, av. 6.83 mm. Genitalia as figured (Figs. 14, 19, 24, 29) North Carolina, Georgia and Florida (Fig. 34) *pogo*, new species
- Lateral transverse bar wide, connecting stripe on elytral margin with stripe on interval 6 and completely dividing lateral area; stripe on elytral interval 6 sinuous; scales of maculations flat, bright, shiny yellowish copper, pink or reddish metallic; ventrally densely covered with large, appressed, white scales medially and yellowish-green metallic scales laterally, visible abdominal sternum 5 in male convex, coarsely punctured, large punctures each with a long, fine erect seta. Rostrum dorsally flat. Legs slender. Slender species. Length: 3.9–8.00 mm, av. 6.70 mm. Genitalia as figured (Figs. 15, 20, 24, 30). Gulf coast states, Arizona and California, Mexico, Honduras, Costa Rica (Figs. 4, 10, 36, 38d) *pulcher* Fahraeus
- 5. Ventrally with dense, flat, broad white scales that conceal integument. Rostrum almost straight, shallowly sulcate medially from large, deep round frontal pit to apical emargination. Femur annulation not very distinct. Visible abdominal sternum 5 in both sexes with numerous, long, fine silvery setae. Smaller species, length: 3.95–6.31 mm, average 4.03 mm. Genitalia as figured (Figs. 16, 21, 26, 31). North Carolina, South Carolina, Georgia, Florida, and Alabama (Fig. 35) *maryae*, new species
- Ventrally with sparse, blackish and silvery, narrow scales that do not conceal integument. Rostrum gently curved, deeply and broadly sulcate medially from oblong frontal pit to apical emargination. Femur annulation distinct, of broad, shiny, golden metallic scales. Visible abdominal sternum 5 in both sexes with numerous stout, brownish, erect setae. Large species, length: 4.6–7.2 mm, av. 6.1 mm. Genitalia as figured (Figs. 17, 22, 27, 32). Argentina, Brazil, Paraguay, Uruguay, Bolivia (Figs. 6, 12, 37, 38e)
 *episcopalis* (Schoenherr)

The life history and biology are basically similar for all species of *Eudiagogus*. Adults defoliate the host plant. It is not known where the eggs are laid, but the larvae are in the soil, feed on roots, pupate, and emerge as adults usually in spring or early summer. Adults of all species feed exclusively on plants in the family Leguminosae, and in particular the species of

the genera *Sesbania*, *Cassia*, and *Daubentonia*. An extensive study of the feeding habits of two species, *pulcher* and *rosenschoeldi*, conducted in south-central Texas (Doyle McKey, personal communication) showed that these beetles were associated almost exclusively with three species of *Sesbania*, *vesicaria* (bagpod sesbania), *drummondii* (Rydb.) Cory (Drummond rattlebox), and *exaltata* (hemp sesbania). The species *pulcher* was commonly found on *drummondii* and *exaltata* and *rosenschoeldi* was even more restricted, being most common on *vesicaria*. The amount of damage done to leaves was extensive. It was very common for a large portion of leaves to be 20 to 60 percent eaten. However, all *Sesbania* species grow extremely fast when they have enough water and good soil, and plants that are heavily damaged can easily grow quite large and produce an abundance of seeds in spite of the damage.

Eudiagogus rosenschoeldi was found to be predominantly nocturnal. Five times as many were found on the same individual plant at midnight as during the day. The species copulated almost exclusively at night. When distributed, the specimens usually dropped from the plant. *Eudiagogus pulcher*, in contrast, was found on a plant in about the same numbers throughout the day and night; and they were found *in copulo* as often during the day as during the night. When distributed, the specimens responded by running around on the plant, not dropping to the ground.

According to Mitchell and Pierce (1911:50) and Pierce (1907:256) these two species were found in abundance on *Cassia occidentalis* L., coffee senna; and they appeared in such great numbers that they quickly defoliated the senna. Pierce also observed them defoliating *Xanthoxylum clavaherculis* L., hercules club prickly ash, and *Sesbania vesicaria*. Schwarz (1884:84) recorded the food plants of these two species as *Cassia occidentalis* and *C. obtusifolia* L., sicklepod. *Eudiagogus pulcher* was much more abundant and defoliated large tracts of the weeds. McConnell (1915:551) observed the larvae of *E. rosenschoeldi* feeding on the nodules on the roots of *Sesbania macrocarpa* (= *S. exaltata*) in Mississippi. The larvae gnawed into the one side of a nodule and out the opposite end. All that was left of the nodule was a convex ring of epidermal tissue. Practically all the plants were destroyed in this way. The larvae also feed on the roots.

As indicated by the labels attached to the specimens, *Eudiagogus* adults overwinter under bark and in crevices of various species of trees, dried corn stalks, crevices of telephone poles, under bark of red-cedar (*Juniperus*) fence posts, in prickly ash (*Xanthoxylum*), in dried okra pods, in trunk of mesquite tree, in Spanish moss, and in dried cotton bolls.

Since the species *maryae* and *pogo* have not been separated from *pulcher* before, it is not now possible to tell, in the areas where the species overlap, to which species the recorded host plants refer.

Eudiagogus episcopalis lives almost exclusively on *Sesbania punicea* (Cav.) commonly known as purple sesbania, "acacia mansa," and "acacia negro." The species is very common on this plant which it inhabits preferably close to rivers. George Vogt (personal communication) found this species causing heavy damage to *Sesbania virgata* (Cav.) Pers., "rama negro," 20-II-75, growing on the marshy shores of Rio de las Palmas, Buenos Aires, Argentina; on *Sesbania* sp. along the margins of backwaters of Rio Paraguay, north of Asuncion, Paraguay, 30-III, 3-IV-75; along the bank of a drainage canal in Campos, Rio de Janeiro, heavily damaging leaves of *Sesbania* sp. growing on fairly high ground on the deltaic island of Rio Guaiba, 7-II-75, Ilha do Pavao, Brazil; and damaging leaves of *Sesbania exaltata* near Guayaquil, Ecuador. The species was collected at Rocha, Uruguay, 11-II-75, on *Sesbania* sp. leaves by Hugo Cordo.

Numbers of individuals were plotted against the time they occurred throughout a twelve-month period (Fig. 38). Differences in seasonal distribution are obvious from these bar graphs.

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